

Community Assistantship Program

BioBusiness Resource Network

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Southern Minnesota Initiative Foundation

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BioBusiness Alliance of Minnesota
BioBusiness Resource Network
High Level Inventory Process Document

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1. Executive Summary

The BioBusiness Resource Network is one of three strategic initiatives of the BioBusiness Alliance of Minnesota (BBAM). The goal is to make doing business in Minnesota a pleasant and rewarding experience. The BioBusiness Resource Network is committed to supporting bioscience companies as they seek to relocate, start-up or expand in Minnesota.

In collaboration with the public, private, and academic sectors, knowledgeable staff help connect new businesses to the resources they need to be successful, from business development to funding to real estate. The BioBusiness Resource Network (BRN) is dedicated to growing the bioscience economy and community in Minnesota to enhance their position as a leader in the bioscience industry.

The BBAM is conducting a state-wide inventory of bioscience capabilities. There are two phases to the inventory: a high level inventory of bioscience capabilities and an in-depth inventory of local assets using the asset-based community development (ABCD) framework. The goal of the high level inventory is to create a database and visualization tool that will be used to market Minnesota's bioscience capabilities. The high level inventory process will yield the data points of companies, academic institutions, and nonprofit or other organizations that either work in or support the bioscience industry. The goal of the ABCD process is to better understand the assets and capacity that exist across the state to support the biosciences. This includes taking stock of the talent, skills, business knowledge, and infrastructure that exist across the state. With the support of a grant from the McKnight Foundation, BBAM is partnering with the Southern Minnesota Initiative Foundation to implement the initial stage of this project in the southern region of the state.

2. High Level Inventory Process

In order to connect businesses with necessary resources, the BRN is conducting a high level inventory of existing assets around the state of Minnesota. The purpose of the inventory process is to create a comprehensive database of companies, organizations, institutions, and programs using a common platform and set of definition. The common platform is the 'Life Science Community'. The BioBusiness Alliance of Minnesota defined the Minnesota Life Science Community as having four main components: Industries (end market suppliers), Commercialization Catalysts, Enabling Knowledge Clusters, and Foundational Capabilities. Each main component is comprised of subcategories (See Table 1). A definitions document explains these categories.

Table 1: Minnesota Life Science Community Categories

Minnesota Industries	Commercialization Catalysts	Enabling Knowledge Clusters	Foundational Capabilities
Medical Devices	Leadership Talent	Catalysis & Synthesis	Education
Pharma/Biologics	Skilled Workforce	NanoTech & Materials Science	Infrastructure
Animal Health	Funding	Bioengineering & Clinical Capabilities	Policy

Food	Academic Tech-Transfer	Bioinformatics & Systems Biology	
Renewable Energy	Acceleration/Incubation	Genomics, Proteomics & High Throughput Biology	
Bio Materials	International Business Support	Imaging/Navigation	
	Components/Services Suppliers		

The database houses data points – each representing an asset – that will be used to populate Google maps. Google maps is a communication tool that will be used to enhance knowledge about the Life Science Community in Minnesota. The goal is to have a prototype version of Google maps populated with the data from the high level inventory meetings for the BIO International Conference, to be held June 17th-20th, 2008.

3. High Level Inventory Meetings

To improve the thoroughness of the database, additional feedback and data is being sought from local economic development organizations, private industry, academia, government, and other interested parties. In order to access community knowledge, initial high level inventory meetings were set up throughout the state. In order to keep meetings at a productive size, the state was divided into 14 sections/regions. Sections were defined primarily by geographical means, but partnering organizations were relied upon to offer insight into better groupings of communities. BBAM collaborated with partnering organizations to set up meetings, including inviting participants.

The purpose of the meetings was two-fold: first, increase awareness about the BioBusiness Alliance of Minnesota and what the bioscience industry entails, as described by the Minnesota Life Science Community and second, obtain information about what bioscience capabilities exist from people on the ground in order to make the database more comprehensive. Meetings were scheduled for roughly four hours each. The first third of the meeting was dedicated to introducing people to the background of BBAM and the work of the BRN. Participants were also introduced to the Google maps tool during this time. The remainder of the meeting was spent reviewing the definitions of the Minnesota Life Science Community and soliciting feedback and contributions from participants.

The first high level inventory meeting took place in St. Cloud. This acted as the trial run of the inventory meeting. With support from a McKnight Foundation grant BBAM partnered with the Southern Minnesota Initiative Foundation (SMIF) to implement this initiative in the southeastern region of the state. As a result, the first round of meetings took place in southern Minnesota. SMIF relied on their established reputation and relationships to invite participants to meetings.

The SMIF region was divided into three sections.

- 1) Albert Lea, Austin, Faribault, and Owatonna
- 2) Mankato, Fairmont, New Ulm, Le Sueur
- 3) Rochester and Winona

To date, the additional meetings that have been set in the entire state include:

Table 2: Meetings to Date

Date	Communities	Partnering Organization
	St. Cloud	
March 6 th	Albert Lea, Austin, Faribault, Owatonna	SMIF
March 7 th	Mankato, Fairmont, New Ulm, Le Sueur	SMIF
March 10 th	Rochester	SMIF and Rochester Economic Development Agency
April 3 rd	METRO SE (Dakota & Scott Counties)	
April 14 th	Fargo, Moorhead, Fergus Falls	
April 15 th	Bemidji, Brainerd	

April 16 th	Duluth, Arrowhead, Iron Range	
April 18 th	METRO SW	
April 21 st	METRO NE	
April 22 nd	METRO NW	
April 25 th	Worthington, Redwood Falls, Willmar, Marshall, Hutchinson	SMIF

4. Process

With the grant from the Center for Urban and Regional Affairs at the University of Minnesota, a Research Assistant from the University of Minnesota was hired to work with SMIF and BBAM. The Research Assistant started in late January of 2008. The responsibilities of the Research Assistant are discussed below.

Research and identify the resources available in six communities across Minnesota with a specific focus on the 20-county region covered by the Southern Minnesota Initiative Foundation, which provide economic development resources pertaining to the creation and expansion of bio-based businesses.

The initial database was compiled of lists obtained from partnering organizations and business contacts. Additional lists were obtained via publications, newspaper clippings, and random encounters. Most lists consisted of simply company names. All information accessed during the initial data gathering stage was obtained via public resources. Information shared from partnering organizations and business contacts included only that which was published or accessible through other public means. Therefore, the database contains no private or confidential information.

The initial database included the following fields:

- Organization name
- Organization Description
- Website URL
- Address
- Notes
- The 22 Minnesota Life Science Community subcategories

After compiling various lists together with basic company information, the database contained roughly 800 entries. The primary goal during January 2008 was to find information for each data point (i.e. organization). The internet was used to locate address, website and business description information. Company descriptions were taken from websites. At this point in the process, more information was added with the expectation that unnecessary information could be cut later. Knowing that the company description would be used to guide the categorization process, information included from websites was selected because it specifically identified the industries served, type of catalysts provided, the knowledge base of their work, and what type of institution was included. An additional consideration was that company descriptions will appear on the Google map tool. Therefore, it was important that the descriptions were accurate. It was decided that descriptions provided by companies was the most reliable information.

Locating company address and descriptions via the internet proved relatively easy. The majority of companies were able to be located using this medium. If a basic web search did not provide a company website, an address and simple company description could usually be located on one of the following three lists:

- http://www.lifesciencealley.com/members/member_list.aspx
- http://www.mbbnet.umn.edu/company_folder/
- <http://www.macraesbluebook.com/>

For venture capitalists, the following list proved helpful for identifying addresses:

- <http://www.mnheadhunter.com/mh/2007/11/minnesota-ventu.html>

With over 800 entries in the database, the Research Assistant worked with other staff members to fill in as much information as possible. Additional columns were added to the database that acted as a communication tool for either future use or use as a communication tool between multiple people accessing the database. For example, the 'notes' column was used for this purpose.

Once this initial furnishing process was completed, companies were sorted alphabetically and the categorization process began. Each company was categorized by placing a Yes (Y) or No (N) response in each of the 22 Life Science Community (LSC) categories. The categorization was based on both the definition given by BBAM and the company description. This proved to be one of the most challenging steps in the process. First, many company descriptions were not easily aligned with the LSC definitions or were not explicit about the services they provided. More information in the description field proved helpful. In some cases, websites had to be revisited in order to get a better understanding of how the companies fit into the Life Science Community.

Contact and interview key individuals within communities and or participate in meetings with the communities to determine the tools and capital available to support bioscience-based businesses at various stages of development

While the database was being filled in, meetings with various communities were confirmed. In order to sort the data points by region, each one was assigned a Regional Code. Subsequently, an additional field was added to the database: Regional Code. Companies were assigned codes based on the city of their address. Additionally, Regional Codes were defined by the communities that were included in those respective meetings. For example, any business located in the cities of Rochester or Winona, or within close proximity of those two communities, were labeled ROCW. There were 15 original codes created.

Table 3. Regional Codes

RM Code	Cities/Area
AAFO	Albert Lea, Austin, Faribault, Owatonna
BB	Bemidji, Brainerd
D	Duluth
FM	Fargo, Moorehead
MAN	Mankato
METRO CENTRAL	Minneapolis, St. Paul
METRO NE	
METRO NW	
METRO SE	
METRO SW	
RANGE	Iron Range
ROCW	Rochester, Winona
SC	St. Cloud
WWMRF	Willmar, Worthington, Marshall, Redwood Falls

Data points were then sorted and divided by regions. Each region was pulled out, placed in its own datasheet, and presented at its respective regional meeting. This provided a base dataset to share with regions representing the assets in each community. This was not a full-proof way of dividing up the data points as some companies serviced not just the city in which they were located, but a region wider than what was represented at a particular meeting. The benefit was that it provided a way to begin the process and proved to be easily maneuverable during meetings. As anticipated, some companies were mentioned multiple times, at multiple regional meetings. These organizations were added and then later culled during a sorting process.

BioBusiness staff member Jeremy Lenz facilitated meetings, providing a broad overview of the BioBusiness Alliance and of the Regional Network. Additionally, he facilitated the data point solicitation process. Bekah Kent assisted with the solicitation process, offering insights into the LSC definitions and data collection process. The Research

Assistant attended the meetings and assisted Jeremy and Bekah with their work. During meetings, participants provided additional data points. Individuals continued to provide data points during the following weeks. A commitment was made to fill in the added data points and to return the updated lists to participants within a three week timeframe. To date, more than 120 people around the state of Minnesota have participated in twelve of these High Level Inventory Meetings.

Table 4: High Level Meeting Tallies to Date (May 14, 2008)

Region	Meeting Date	Number of Participants	Net Number of Data Points
St. Cloud	January 16	5	1
Albert Lea, Austin, Owatonna, Faribault	March 6	19	82
Mankato	March 7	13	79
Rochester	March 10	10	52
Twin Cities Metro Southeast	April 3	11	84
Fargo, Moorhead, Fergus Falls	April 14 th	20	65
Bemidji, Brainerd	April 15 th	8	20
Duluth, Arrowhead, Iron Range	April 16 th	12	36
Twin Cities Metro Southwest	April 18 th	7	11
Twin Cities Metro Northeast	April 21 st	11	21
Twin Cities Metro Northwest	April 22 nd	12	111
Worthington, Redwood Falls, Willmar, Marshall, Hutchinson	April 25 th	9	141
St. Cloud Students ¹	May 1 st	4	185
TOTAL	12	141	888

Follow up on community meetings with requests for data and more information.

Upon returning from these meetings, the same process as above was employed to fill in the database further. A basic internet search was conducted to obtain the address and basic company description for the newly added data points. Then each company was categorized. These lists were then returned to each participant within the allotted timeframe.

Assist in building and maintain database of the information gained from the resources research.

Data points continued to be added during this process. First, participants from meetings continued to send in additional points. Second, additional sources of data points were provided. These included updated lists from magazines, newspapers, and email notices. These points were added to the database and again, the above described process employed.

Research and provide input into the planning process for a more in-depth Asset-Based Community Development process.

The High Level Inventory was to act as a foundation for the more in depth Asset-Based Community Development process. The planning for this Asset-Based Community Development (ABCD) evolved during this time. It became known that a variety of organizations throughout the state were interested in conducting an asset based analysis, each with different but overlapping purposes. A meeting was called inviting these multiple organizations together to discuss the potential of collaborating on this process. While originally facilitated by AgStar, Southern Minnesota

¹ The BioBusiness Alliance of Minnesota also worked with a group of students from St. Cloud State to obtain additional data points using the North American Industry Classification System (NAICS) codes.

Initiative Foundation was invited to convene this process. Partners were asked to commit by April 1st to participate in a collaborative process. Currently, negotiations are underway to begin this process.

Creation of metrics for ABCD process.

This is currently in progress.

Assist in creating a visual graphic of the inventory data using the Google Earth software.

The work on the database is providing the data points for the Google Earth software.

5. Lessons Learned

One of the most challenging steps in the inventory process was the categorization of each company. Company descriptions obtained by websites were often not succinct enough to clearly categorize. Additionally, while companies may advertise specific services they offer, they may have the capability of offering various services that they do not advertise. One specific area where this proved difficult was in regards to the NanoTech and Materials Science category. While Materials Science is easier to recognize, the use of nanotechnology is difficult to specifically ascertain from a company description.

Relying on published lists and internet websites proved to be a good place to start but also resulted in a limited data set. This was anticipated from the onset, which is why the High Level meetings were set up. This proved to be true. Coupling an initial high level search done via the internet with the on the ground community meetings has provided a more robust and well rounded database to date.

6. Conclusion

The BioBusiness Regional Network High Level Inventory has resulted in a comprehensive database that provides a common platform for better understanding the bioscience industry in the State of Minnesota. The time spent gathering data on companies, compiling lists, and working with community members to create a more robust database has proven effective. Additionally, the time spent working with community members has laid the groundwork for future work throughout the state.